it is the purpose of the claims to bound the invention. Some of the rejections (e.g.; the rejections of claims 33, 85, 92, and 94) are based upon lack of antecedent basis, but a <u>first</u> recitation of a term cannot have an antecedent.

The Examiner is respectfully referred to the disclosure, such as pages 219-239 and 337-365 and Figures 5D and 6W-6AH for a disclosure of a buffer memory and kernel processor arrangement.

1.2 TRAVERSE OF THE 35 USC 103 REJECTIONS

Claims 21-24, 26-29, 31-34, 36-41, 43-49, 51-56, 58-63, 65-68, 70-73, 75-78, and 80-97 stand rejected under 35 USC 103 over Marsh (instant Action at paras. 5-16) and claims 25, 30, 35, 42, 50, 57, 64, 69, 74, and 79 stand rejected under 35 USC 103 over Marsh in view of Widergren, Cease, or Forquer (instant Action at paras. 17-18). In particular, neither Marsh nor Widergren, nor Cease, nor Forquer, nor any combination thereof renders obvious the claims rejected thereover and the 35 USC 103 rejections do not meet the requirements of the Federal Circuit, as discussed below.

Marsh is an improper reference for the instant claims. Marsh teaches a polygon-based graphics system. Conversely, the claims are expressly limited to a novel memory arrangement.

The rejections expressly disregard limitations of the claims (instant Action at para. 6), which is clearly improper. The Federal Circuit requires consideration of the claim as a whole, including each and every limitation.

The rejections are based upon terminology such as what is "not explicitly shown" but is alleged to be inherent in Marsh (instant Action at paras. 7 and 11) or "well known" (instant Action at paras. 10-11), not what Marsh teaches in an enabling manner. This is clearly improper. The Federal Circuit does not permit the rejection to use the inventor's disclosure and claims as a guide to interpreting the references.

The rejections are based upon a memory being inherent in any display system (instant Action at paras. 7 and 11), disregarding the novel features of the claimed inventions. This too is clearly improper.

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The instant Action relies on taking official notice (e.g.; instant Action at paras. 9, 11, 13, and 14). See the traverse of the taking of official notice discussed in Section 1.4 below. The Applicant respectfully requests that a reference be cited in support thereof.

The rejection is based upon a prior board decision because the claims are allegedly "substantially similar to these present claims" (instant Action at para. 18). However, the present claims are significantly narrower than the claims treated in that board decision.

The combination of significantly different types of references is improper. For example, Marsh is directed to a polygon type graphic system while Widergren is directed to video compression, Cease is directed to a clock generator, and Forquer is directed to a multiprocessor memory. There is no suggestion or apparent reason for an artisan to attempt to combine these references and no indication of how these references can be combined. The Federal Circuit does not permit the rejection to use the inventor's disclosure and claims as a guide to interpreting the references.

The notion that combination claims can be declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute. Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987). A holding that combination claims are invalid based merely upon finding similar elements in separate prior art patents would be contrary to statute and would defeat the congressional purpose in enacting Title 35. Smithkline Diagnostics, Inc. v. Helena Labs, Corp., 859 F.2d 878, 8 USPQ2d 1468 (Fed. Cir. 1988).

Likewise, the mere fact that it is possible to find two isolated disclosures which might be combined in such a way as to

produce a new compound does not necessarily render such production obvious unless the art also contains something to suggest the desirability of the proposed combination. <u>In re Grabiak</u>, 769 F.2d 729, 226 USPQ 870 (Fed. Cir. 1985).

The mere fact that the prior art can be modified does not make the modification obvious unless the prior art suggests the desirability of the modification. The suggestion to modify a structure need not be found in the reference that discloses the structure, but there must be some logical reason apparent from positive, concrete evidence that justifies a combination of primary and secondary references. In re Laskowski, 871 F.2d 115, 10 USPQ2d 1397 (Fed. Cir. 1989). Where the required modification is to turn an element upside down, and it would be inoperable for its intended purpose when turned upside down, there is a teaching away rather than a suggestion to modify. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984).

The problem confronted by the inventor must be considered in determining whether it would have been obvious to combine references in order to solve that problem. Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 15 USPQ2d 1321 (Fed. Cir. 1990); Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 7 USPQ2d 1315 (Fed. Cir. 1988).

The mere fact that the prior art can be modified in the manner suggested by an examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. <u>In re Fritch</u>, 972 F.2d 1260, 35 USPQ2d 1780 (Fed. Cir. 1992); <u>In re Gordon</u>, 733 F.2d 900, 221 USPQ at 1127 (Fed.Cir. 1984) and cases cited therein. <u>In re Geiger</u>, 815 F.2d 686, 688, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987).

A modification that renders the prior art inoperable for its intended purpose is inappropriate. <u>In re Fritch</u>, 972 F.2d 1260, 35 USPQ2d 1780 (Fed. Cir. 1992).

It is necessary to view the prior art without reading into it the patent's teachings. <u>Vandenberg v. Dairy Equip. Co.</u>, 740 F.2d 1560, 224 USPQ 195 (Fed. Cir. 1984); <u>Kansas Jack, Inc. v. Kuhn</u>, 719 F.2d 1144, 219 USPQ 857 (Fed. Cir. 1983); <u>Union Carbide</u>

Corp. v. American Can Co., 724 F.2d 1567, 220 USPQ 584 (Fed. Cir.
1984).

Hindsight is forbidden. <u>Panduit Corp. v. Dennison Mfg. Co.</u>, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985); <u>Loctite Corp. v. Ultraseal Ltd.</u>, 781 F.2d 861, 228 USPQ 90 (Fed. Cir. 1985).

Hindsight selection of the pertinent art must be avoided at all costs. <u>Union Carbide Corp. v. American Can Co.</u>, 724 F.2d 1567, 220 USPQ 584 (Fed. Cir. 1984).

Obviousness under 35 USC 103 requires that the entirety of the claimed invention "as a whole". <u>Panduit Corp. v. Dennison Mfg. Co.</u>, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987).

It is improper to use the inventor's patent as an instruction book on how to reconstruct the prior art. Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987). When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reasons for the combination other than the hindsight gleaned from the invention itself. Something in the prior art as a whole must suggest the desirability, and thus the obviousness of making the combination. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

An infringer cannot pick and choose among individual parts of assorted prior art references as a mosaic to recreate a facsimile of the claimed invention. <u>Akzo N.V. v. United States ITC</u>, 808 F.2d 1471, 1 USPQ2d 1241 (Fed. Cir. 1986).

Virtually all inventions are combinations and virtually all are combinations of old elements. <u>Panduit Corp. v. Dennison Mfg. Co.</u>, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987); <u>Richdel, Inc. v. Sunspool Corp.</u>, 714 F.2d 1573, 219 USPQ 8 (Fed. Cir. 1983); <u>Environmental Designs, Ltd. v. Union Oil Co.</u>, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983).

The subject matter that must have been obvious, in order to deny patentability under para. 103, is the entirety of the claimed invention, a concept Congress nailed down with the statutory phrase "as a whole." <u>Panduit Corp. v. Dennison Mfg.</u>

<u>Co.</u>, 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987). See also <u>Stewart-Warner Corp. v. City of Pontiac</u>, 767 F.2d 1563, 226 USPQ 676 (Fed. Cir. 1985).

1.3 35 USC 101 REJECTIONS

Claims 95-97 stand rejected under 35 USC 101 over the claims of various listed copending applications (instant Action at paras. 19-23). The Applicant respectfully traverses these rejections.

OPINION

The test for determining double patenting was enunciated by the CCPA in <u>In</u> re Vogel, 57 CCPA 920, 422 F.2d 438, 164 USPQ 619 (1970) and <u>In re</u> Avery, 518 F.2d 1228, 186 USPQ 161 (CCPA 1975). Since 35 USC 101 precludes the issuance of two patents on the same invention, the first question to be determined is whether or not the same invention is being claimed twice, that is, whether one of the claims could be literally infringed without literally infringing the other. A terminal disclaimer is ineffective when the rejection is based upon 35 USC 101. If the same invention is not being claimed twice, it must then be determined whether or not the claim in the application is merely an obvious variation of the patent claim. If the application claim is an obvious variation of the patent claim, a terminal disclaimer may be filed to obviate the rejection. If the application claim is not an obvious variation, then there is no double patenting. It should be noted that a double patenting rejection of the obviousness type is not based upon 35 U.S.C. 101 but rather is a judicially created doctrine.

Since the rejection of claims 1, 3 and 5 was bottomed on 35 U.S.C. 101 and the test involves infringement, suffice it to say that claims 1, 3 and 5 include "an illumination source" while patent claims 28, 29 and 33 do not. Accordingly, the patent claims could be infringed without infringing claims 1, 3, and 5. This distinction alone is sufficient to defeat a double patenting rejection based on 35 U.S.C. 101.' (Exparte Hyatt, unpublished decision of the PTO Board of Appeals, Appeal No. 480-93, Application S/N 874,444 decided October 13, 1983).

1.4 OBVIOUSNESS TYPE DOUBLE PATENT REJECTIONS

This double patenting does not present a <u>prima facie</u> rejection. The Fifth Amendment to the United States Constitution requires a rejection to set forth the reasons for the rejection with sufficient specificity for an applicant to determine the nature of the rejection and to challenge the rejection if appropriate. See also 37 CFR 1.106(b). However, this rejection does not provided the required specificity.

Claims 21-94 stand rejected for obviousness type double patenting over various copending applications (instant Action at paras. 24-47). The Applicant respectfully traverses these rejections for the following reasons.

This double patenting rejection is based upon contentions of taking official notice of the obvious and well known nature of certain limitations. However, the Applicant respectfully traverses this taking of notice.

The well known nature of bits and pieces does not establish obviousness.

"Only god works from nothing. Man must work with old elements." (65 J.Pat.Off.Soc'y 331; Howard T. Markey; Chief Judge; Court of Appeals for the Federal Circuit). Just because the elements existed does not mean that they are combined in the claimed manner or that they cooperate in the claimed manner.

Virtually all inventions are combinations and virtually all are combinations of old elements. Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1 USPQ2d 1593 (Fed. Cir. 1987); Richdel, Inc. v. Sunspool Corp., 714 F.2d 1573, 219 USPQ 8 (Fed. Cir. 1983); Environmental Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983). Merely finding the bits and pieces of the claimed invention in various references does not in itself establish obviousness.

This is further established in the following Board decision.

Claim 4 stands rejected under 35 U.S.C. 103 as obvious in view of the patent to Beach. Conceding that Beach does not disclose a filter processor, the examiner asserts at page 3 of the answer that

"filtering" is "a notoriously old concept in the electronics art" and concludes that "it would clearly be of interest to Beach et al to condition these signals [generated by phototransistors 62, Figure 2] for such processing [by computer 27, Figure 1] by filtering."

The appellant contends that Beach does not disclose and has no need for a filter processor.

OPINION

We will not sustain the rejection of claim 4 under 35 U.S.C. 103 as obvious in view of the evidence relied on by the examiner.

The examiner does not identify the "filtering" process that he considers to be so notoriously old or explain how the concept would be applied to the Beach system. In any event, we are convinced that Beach would have no need to subject the outputs of the six detectors 62 of the <u>digital</u> address sensing system (Figures 1, 2 and 7) to a "filtering" process for conditioning the same for computer processing. [Bracketed material and underlines in original] <u>Exparte Hyatt</u>, Appeal No. 86-2418, PTO Board 1989, S/N 06/342,579.

Claims 95-97 stand rejected for obviousness type double patenting over claim 8 of the Applicant's '930 patent in combination with Marsh (instant Action at para. 31). The Applicant respectfully traverses these rejections for the following reasons. There is no basis for the combination of Marsh with the '930 patent. Marsh is directed to a graphic system and claim 8 of the '930 patent is directed to a signature memory system. The rejection attempts to equate a filter to rotation and translation, but this is erroneous. These terms have art recognized differences and are used differently in the '930 patent and in the instant application.

Claims 21-97 stand rejected for obviousness type double patenting over various copending applications (instant Action at paras. 35-46). The Applicant respectfully traverses these rejections for the following reasons.

The rejection improperly attempts to compare the claims of the instant application with the <u>disclosure</u> of the related

applications. This is clearly improper. It is the claimed inventions that must be compared.

The rejection cites <u>In re Schneller</u>. However, <u>In re Schneller</u> is not relevant to the instant application because <u>In re Schneller</u> deals with the issue of extending a right to exclude for a long ago issued ancestor patent and for a pending application. However, this rejection only rejects the instant application over copending applications, there is no long ago issued ancestor patent involved.

Further, <u>In re Schneller</u> is effectively a late claiming case, but late claiming is no more than the rule against new matter. See <u>Westphal v.Fawzi</u>, 666F.2d 575, 212 USPQ 321 (CCPA, 1981). This rejection of any independent doctrine of late claiming that would prohibit the claiming of originally disclosed matter was so unequivocal that the Federal Circuit now refers to late claiming as an inappropriate and long-ago discredited label. See <u>Railroad Dynamics</u>, <u>Inc. v. A. Stucki Co.</u>, 727 F.2d 1506, 220 USPQ 929 (Fed. Cir. 1984).

1.5 <u>37 CFR 1.83(a) OBJECTION</u>

The Action objects to the drawings regarding the structural relationships. However, detailed schematics of buffer memory and kernel processor embodiments are disclosed. Reference is made for example to Figure 5D for an overall diagram and to Figures 6W-6AH for detailed schematics of buffer memory and kernel processor embodiments.

The Action objects to the drawings as not showing rotated, scaled, perspective, etc. images. However, the apparatus and the process generating the images is what is claimed and is disclosed in great detail. For example, see Figures 1K, 1M, and 2B-2G and the specification related thereto.

It is well established that it is the content and not the form of the disclosure that is important. See <u>In re Sherwood</u>, 204 USPQ 537, 545 footnote 8 (CCPA 1980).

1.6 RELATED APPLICATIONS

The docket number (DKT NO.) and serial no. (SERIAL NO.) of related applications are listed below.

MEMORY/BUFFER SYSTEMS

DKT. NO.	SERIAL NO.	DKT. NO.	SERIAL NO.	DKT. NO.	<u>SERIAL</u> <u>NO.</u>
500 501 502 503 504 505 506 507 508 509 510 511 512	08/435,894 08/432,478 08/435,901 08/435,033 08/470,079 08/470,888 08/471,714 08/471,707 08/471,138 08/471,598 08/471,598 08/471,702 08/471,700 08/471,700 08/471,704	517 518 519 520 521 522 523 524 525 526 527 528 529 530 531	08/479,087 08/471,925 08/470,084 08/470,082 08/469,573 08/469,565 08/472,062 08/471,135 08/472,019 08/469,885 08/471,543 08/470,080 08/471,708 08/471,709	534 535 536 537 538 539 541 542 543 544 545 546 547	08/471,845 08/470,899 08/469,058 08/468,501 08/466,953 08/469,039 08/470,367 08/470,177 08/469,098 08/466,164 08/471,069 08/471,958 08/483,016 08/471,070 08/470,882
515 516	08/471,549 08/471,702	532 533	08/471,710 08/471,587		

IMAGE PROCESSING SYSTEMS

DKT. NO.	SERIAL NO.	DKT.	<u>SERIAL</u> <u>NO.</u>	DKT.	<u>SERIAL</u> <u>NO.</u>
700	08/458,141	734	08/461,567	768	08/464,992
701	08/456,333	735	08/459,221	769	08/465,199
702	08/458,143	736	08/458,206	770	08/465,658
703	08/458,142	737	08/460,612	771	08/464,511
704	08/456,339	738	08/460,172	772	08/469,262
705	08/457,360	739	08/458,549	773	08/469,261
706	08/457,715	740	08/464,512	774	08/469,077
707	08/457,726	741	08/464,999	775	08/469,263
708	08/457,211	742	08/465,083	776	08/466,600
709	08/457,728	743	08/461,288	777	08/466,599
710	08/457,448	744	08/460,718	778	08/469,407
711	08/457,208	745	08/460,753	779	08/471,633
712	08/458,005	746	08/459,648	780	08/471,542
713	08/458,004	747	08/464,007	781	08/469,321
714	08/458,104	748	08/464,998	782	08/471,695
715	08/456,901	749	08/469,018	783	08/471,553
716	08/457,362	750	08/463,824	784	08/471,600
717	08/456,398	751	08/464,034	785	08/471,701
718	08/457,194	752	08/463,583	786	08/471,123
719	08/457,197	753	08/464,979	787	08/471,425
720	08/456,296	754	08/465,198	788	08/471,136
721	08/456,592	755	08/465,173	789	08/469,580
722	08/458,006	756	08/465,071	790	08/469,889
723	08/457,196	757	08/465,657	791	08/469,888
724	08/459,158	758	08/463,823	792	08/466,557
725	08/460,607	759	08/463,822	793	08/470,569
726	08/458,791	760	08/465,072	794	08/471,846
727	08/459,152	761	08/463,111	795	08/469,592
728	08/459,848	762	08/464,497	796	08/469,060
729	08/460,737	763	08/465,201	797	08/471,255
730	08/460,422	764	08/466,992	798	08/471,042
731	08/460,705	765	08/463,821	799	08/471,252
732	08/458,608	766	08/465,200		
733	08/460,433	767	08/469,001		

The Examiner is further requested to take notice of the prosecution and appeals in related applications Serial No. 06/661,649; Serial No. 06/662,211; Serial No. 06/663,094; Serial No. 07/289,355; Serial No. 07/815,644; and Serial No. 08/034,627.

II <u>AMENDMENTS</u>

2.1 <u>AMENDMENTS</u> TO THE CLAIMS

Claim 24 at lines 1 and 2, between "claim" and "further comprising" change "18" to --23--.

Claim 25 at lines 1 and 2, between "claim" and "further comprising" change "16" to --21--.

Claim 57 at lines 1 and 2, between "claim" and "further comprising" change "16" to --52--

Claim 63 at lines 1 and 2, between "claim" and "further comprising" change "57" to --62--.

<u>CERTIFICATION OF MAILING:</u> I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on April 22, 1996.

Respectfully submitted,

Dated: April 22, 1996

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